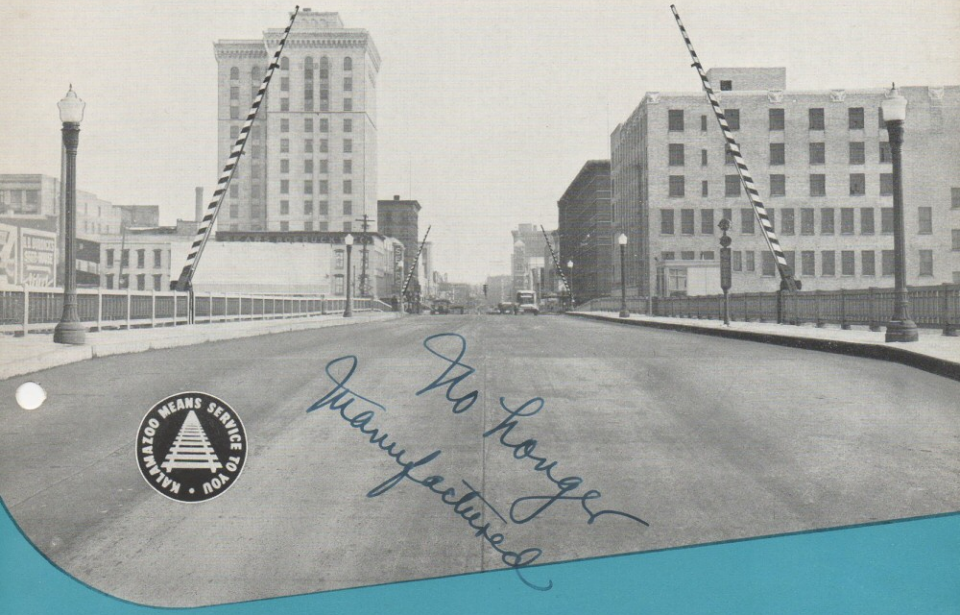
PROTECTION FOR RAILROADS BRIDGES AND INDUSTRIAL PLANTS



THE DEPENDABLE

Kalamazoo

ELECTRIC GATE

Maximum Protection

ECONOMICAL TO OPERATE AND MAINTAIN

A Typical Six Post Installation

MAXIMUM PROTECTION AT MINIMUM COST

The Kalamazoo Electric Crossing Gate features simplicity of operation. One man from a central location can operate gates for two or more crossings. The gates will automatically stop at end of arc and it is only necessary to reverse the switches to bring them back to the original position.

The operator has perfect control as the gates can be stopped, started or reversed quickly by simply throwing the switches. This makes it possible to avoid the expense of the majority of breakages which occur when slower types of gates are lowered ahead of traffic.

SPEED

Ten seconds required to operate with average length arms

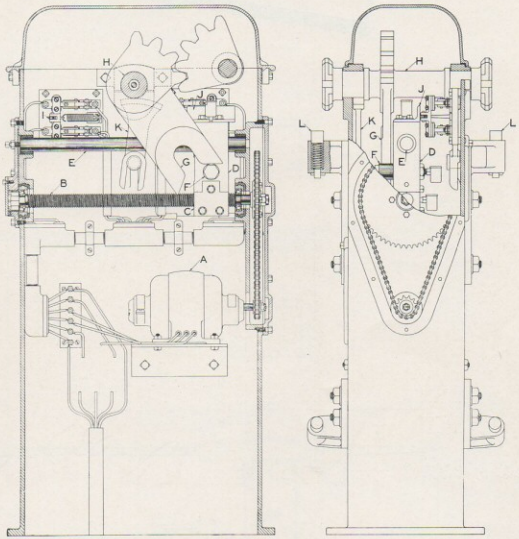
ELECTRIC MOTORS

The Kalamazoo Gate is arranged to operate on almost any current, voltage or phase. When inquiring or ordering state available current supply, D.C. or A.C., voltage, cycle and phase.

for Every Crossing!

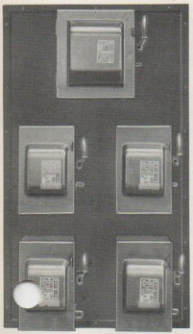
SIMPLE MECHANISM

A roller chain drives from motor "A" to the sprocket on the screw-shaft "B". This screw runs on Timken roller bearings which take the thrust of the bronze split nut "C". This traveling back and forth on the screw actuates the cam "G", which lowers and raises the gate arms. The split nut fits carrier block "D", which slides on shaft "E" parallel to the screw. The roller "F" on the carrier block works against the cam "G" which is an integral part of the shaft that carries the street arm castings and moves the sidewalk arm castings through a gear sector. This cam is so shaped that the motor starts without load and the arms start to travel slowly, increasing in speed toward the center of the arc and slowing up as the end of the arc is approached. The cam "J" on the carrier block stops the motor at the proper point at each end of the travel by breaking the electric circuit through limit switches "I". Thus the gate stops automatically at the lowered or raised position without help. The shaft carrying the street arms is mounted on antifriction sectors "K" and works very easily. The whole mechanism is rigidly fastened in the cast iron housing.



Sectional View Showing All Working Parts

KALAMAZOO CONTROL BOARDS



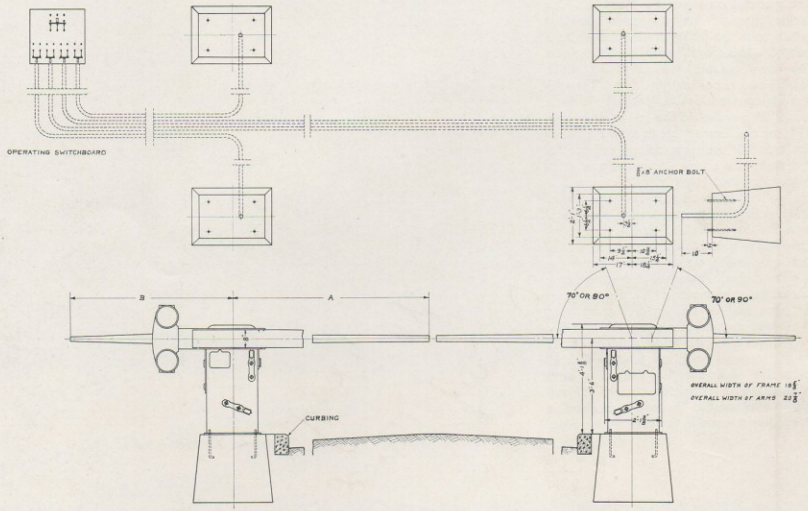
Enclosed Safety Switches

Drum Type Switches

Control switchboards are furnished to meet any installation. Box type, drum type, or push button controls can be furnished. For bridge installations where operator may not have a clear view of gates, annunciator lights can be furnished on control boards which show the position of the arms.

SPECIFICATIONS

Typical Foundation Plan for Four Post Set of Kalamazoo Electric Crossing Gate



INSULATION:
All wires and switches are electrically insulated from the post and protected from the weather.

FOUNDATIONS:
Concrete foundations are provided by the customer in accordance with plans furnished by us. Anchor bolts are furnished with the gates.

ARC OF TRAVEL:
The standard arc is 70° (90° furnished when specified) for both street and sidewalk arms. Gate arms can be furnished up to fifty feet long, with corresponding sidewalk arms.

TIME OF OPERATION:
The operation of the Kalamazoo Electric Gate is rapid. Gates with the average length arms will raise or lower in ten seconds.

MOTOR:
½ Horsepower electrically reversible motor to current specified.

WIRING:
The internal wiring of the gate is run in conduits. Wiring from post to tower is very simple and easily installed in accordance with our wiring diagrams which are furnished with each installation.

SWITCHBOARD:
The switchboard with any number or type of switches for operating the gates can be furnished by us or built by the customer in accordance with our wiring diagrams. Limit switches for operation of lights or bells can be furnished installed in gate post when specified.

Cable Address—Velocipede **Printed in U.S.A. on Bryant Pliable Enamel** KG.-3

KALAMAZOO RAILWAY SUPPLY CO.

MANUFACTURERS **KALAMAZOO, MICH., U. S. A.**